REMARKS

The Office examined claims 1-9 and rejected same. Claims 1-21 remain pending, of which claims 10-21 are withdrawn.

With this paper, claim 4 is changed to eliminate an obvious error (a second sentence), noted by the Examiner and regarding which the Examiner indicated that he would treat as a typographical error, and so ignore for examination purposes. No other changes are made to the claims, and reconsideration is requested.

Claim objections

Claims 2-7 are objected to for reciting "a semiconductor component" instead of "the semiconductor component." Applicant respectfully submits that as a matter of standard English, the recitation of "a semiconductor component" is correct, since the claims go on to recite e.g. "as set forth in claim 1 ...," as opposed to e.g. "of claim 1." Thus, the claims are to *any* semiconductor element that meets the limitations recited in e.g. claim 1. Hence the phraseology "*a* semiconductor component ... ."

Rejection under 35 USC section 112, second paragraph

Claim 4 is rejected under 35 USC section 112, second paragraph. With this paper, the obvious typographical error of claim 4 is corrected.

The Examiner also asserts that claim 4 is rejected for being "narrative in form and replete with indefinite and functional or operational language." Applicant respectfully submits that each and every limitation relied on to distinguish the semiconductor device to which claim 4 is drawn is positively recited. The claim includes no indefinite language. The Examiner fails to indicate any particular language that is the basis for the rejection, and accordingly, applicant requests that the Examiner withdraw the rejection.

Rejection under 35 USC section 103

The Office rejects claims 1-3 and 5-9 under 35 USC section 103 as being unpatentable over US 2002/0089023 (Yu), and rejects claim 4 under 35 USC section 103 as being unpatentable over Yu in view of US 2003/0228747 (Ahn). Only claim 1 is independent.

Claim 1 recites a mixed oxide layer containing silicon, praseodymium and oxygen, which is of a layer thickness of less than 5 nanometers, arranged between a silicon-bearing layer and a praseodymium oxide layer.

The Examiner continues to assert that Yu discloses such a praseodymium oxide layer, referring to template layer 305 of Yu, even though Yu does not in fact mention praseodymium oxide as a constituent of template layer 305. The Examiner asserts that Yu can be relied on as disclosing the recited praseodymium oxide layer because. The Examiner argues as follows:

> Yu states that the template layer 305 may include 1-10 monolayers of silicon, oxygen, and an element suitable to successfully grow layer 306 (para. 39). Furthermore, Yu teaches wherein layer 306 may include praseodymium and oxygen (para. 42-42). Thus, it is obvious that the "element suitable" to successfully grow a layer 306 of $PrO_{2-x}N_x$ (para. 42) is praseodymium.

This amounts to an assertion that because a reference includes a teaching that does encompass an invention, but never actually teaches or suggests the invention, the teaching can nonetheless be relied on as a basis for rejection. So according to the Examiner, the teaching provided by a reference can be taken to encompass all that is not inconsistent with the teaching. Applicant respectfully submits that this is not the law, especially here, where applicant has previously noted for the Examiner that it is *not necessary* that the template layer 305 include praseodymium in order to grow layer 306 even if layer 306 includes praseodymium. Thus, the Examiner cannot assert that the "suitable element" for growing a layer of grow a layer 306 of $PrO_{2-x}N_x$ is necessarily praseodymium oxide, or

that the "suitable element" necessarily includes praseodymium in any combination). Thus, the teaching is merely consistent with the template layer including praseodymium oxide, as opposed to teaching or suggesting that the template layer include praseodymium oxide.

The Examiner also continues to maintain that layer 306 (para. 40 of Yu) is a praseodymium oxide layer, despite applicant having pointed out that layer 306 is a praseodymium "oxide-nitride" layer containing *substitutional* nitrogen on oxygen sites. The Examiner argues that the recitation of "praseodymium oxide layer" does not exclude the layer from having nitrogen. Applicant respectfully submits that the Examiner is again asserting that because what is claimed is not inconsistent with the teaching of a reference, the reference can be relied on. But a teaching of a praseodymium "oxide-nitride" layer containing *substitutional* nitrogen on oxygen sites is not a teaching of praseodymium oxide. These two materials are different, despite the latter including some of the same atoms as the former. At a minimum, at least some of the oxygen atoms of a quantity of praseodymium oxide must be replaced by nitrogen in order to obtain the disclosed praseodymium oxide-nitride layer. Presumably enough of the oxygen atoms must be replaced to make a difference chemically and/or physically (including electrically), or there would be no reason to make any substitutions. If the resulting material (praseoduymiuim oxide-nitride) differs chemically and/or physically (from praseodymium oxide), although it may share some component atoms with praseodymium, applicant respectfully submits that the material must be considered to be different than praseodymium oxide.

Thus, Yu does not disclose either the recited mixed oxide layer containing praseodymium or the recited praseodymium oxide layer.

Accordingly, applicant respectfully requests that the rejections under 35 USC §103 be reconsidered and withdrawn.

Conclusion

It is believed that all of the claims now pending in the application, namely claims 1-9, are in condition for allowance and their passage to issue is earnestly solicited.

Respectfully submitted,

29 November 2007 /James A. Retter/

Date James A. Retter
Registration No. 41,266

WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
755 Main Street, P.O. Box 224
Monroe, CT 06468-0224

tel: (203) 261-1234
Cust. No.: 004955